



SUBSTANCE-INDUCED PSYCHOSIS LINKED TO BOTH INFECTIONS AND SCHIZOPHRENIA

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factors with preadult multiple drug use ($p = 1.12 \times 10^{-25}$, OR = 243.6). Furthermore, preadult environmental risk accumulation strongly predicted onset of multiple drug use in adulthood (> 18 years; $p = 6.27 \times 10^{-18}$, OR = 19.4). The application of the novel genetic approach yielded 35 single-nucleotide variants (SNPs) that potentially confer susceptibility to preadult multiple drug use. Out of these, 14 were located in gene-coding regions. Interestingly, 9 of these genes are implicated in neuronal development/function or metabolite transport/transformation. Additional gene-based analyses identified another 4 genes relevant for metabolite transport/transformation as well as 4 genes that play a role in hypoxia signaling.

Discussion: The present results show that an accumulation of environmental risk factors during early life (< 18 years) is a strong predictor of multiple drug use during adolescence and later life. These findings suggest that exposure to accumulated environmental risk during early life is not only associated with violent aggression – as previously reported by our lab – but is also an important predictor of multiple drug use. Moreover, we present first evidence of a genetic susceptibility to preadult multiple drug use, which will benefit from future replication in suitable samples of patients with mental illness or the general population.

T82. THE IMPACT OF SMOKING ON LIFE EXPECTANCY IN PSYCHOTIC DISORDERS, AN ELECTRONIC CASE REGISTER COHORT STUDY.

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Background: Schizophrenia, schizoaffective disorder and bipolar affective disorder are associated with a life expectancy at birth that is 10–20 years shorter than in the general population. The prevalence of cigarette smoking in people with these disorders is very high, but the extent to which this accounts for differences in mortality is unclear. We addressed this issue by examining the effect of smoking on life expectancy and survival in a large electronic healthcare database of patients receiving secondary mental healthcare in South East London.

Methods: Data on all patients with a diagnosis of schizophrenia, schizoaffective disorder or bipolar affective disorder from 1st January 2007 to 31st December 2018 was obtained. Smoking status was determined using unstructured text data extracted from electronic health records. Chiang's method of abridged life tables was used to calculate estimates of life expectancy at birth according to gender and most commonly recorded smoking status. Cox proportional hazards models were used to estimate mortality risk and adjusted for a broad range of demographic and clinical variables.

Results: 21,588 patients were included in the study of which 20,155 (93.4%) were classified as either smokers (16,717 [77.4%]) or non-smokers (3,438 [15.9%]). 2,434 (11.3%) participants died by the end of the observation period. In female patients, life expectancy at birth was 67.6 years in current smokers (95% CI: 66.4 to 68.8) and 74.9 years in non-smokers (95% CI: 72.8 to 77.0). In male patients, life expectancy at birth was 63.5 years in current smokers (95% CI: 62.5 to 64.5) and 68.5 years in non-smokers (95% CI: 64.4 to 72.6). Adjusted survival models showed that current smoking was associated with an increased risk of death, in both females (aHR = 1.42; 95% CI: 1.21–1.66) and males (aHR = 1.49; 95% CI: 1.25–1.79).

Discussion: Smoking may account for a substantial proportion of the reduced life expectancy in patients with psychotic disorders. Interventions to reduce tobacco smoking in patients with psychosis may therefore improve life expectancy in this group.

T83. SUBSTANCE-INDUCED PSYCHOSIS LINKED TO BOTH INFECTIONS AND SCHIZOPHRENIA

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Background: Substance-induced psychosis is an under-researched phenomenon, and little is known about its etiology (other than exposure to substances) and long-term prognosis. In this presentation, we aim to present results from two recent studies, one of which was recently published and the other is currently in the process of being analyzed. The first study investigates rates and predictors of conversion from substance-induced psychosis; the second study investigates the association between severe infections and substance-induced psychosis, including the contribution of infections on conversion to schizophrenia.

Methods: Both studies utilized the nationwide Danish registers.

In study 1, we included all people diagnosed with substance-induced psychosis from 1994 to 2014 ($n=6,788$). These were followed using the Kaplan-Meier method and Cox proportional hazards regression to estimate rates and predictors of conversion to schizophrenia or bipolar disorder.

In study 2, we included the entire Danish population born since 1981 ($n=2,256,779$). These were followed in Cox proportional hazards regression models, linking hospital-requiring infections as time-varying covariates to development of substance-induced psychosis. In further analyses, we followed those who had developed substance-induced psychosis to determine whether infections would influence the risk of converting to schizophrenia.

Results: Study 1: Overall, 32.2% (95% CI 29.7–34.9) of patients with a substance-induced psychosis converted to either bipolar or schizophrenia-spectrum disorders. The highest conversion rate was found for cannabis-induced psychosis, with 47.4% (95% CI 42.7–52.3) converting to either schizophrenia or bipolar disorder. Young age was associated with a higher risk of converting to schizophrenia. Self-harm was significantly linked to a higher risk of converting to both schizophrenia and bipolar disorder.

Study 2: Infections increased the risk of substance-induced psychosis (HR=1.30, 95% CI 1.22–1.39) in the fully adjusted model. Hepatitis was the infection most strongly associated with substance-induced psychosis, at HR=3.42 (95% CI 2.47–4.74). Different sites of infections showed associations with different types of substance-induced psychosis. Finally, hepatitis increased the risk of conversion to schizophrenia with HR=1.87 (95% CI 1.07–3.26).

Discussion: Substance-induced psychosis is strongly associated with the development of severe mental illness, and a long follow-up period is needed to identify the majority of cases. Infections appear to play a role in the etiology of substance-induced psychosis which is very similar to the role infections play in the etiology of schizophrenia. This lends strong support to the existence of an immune-related component to psychosis in general, and not just to schizophrenia.

T84. PREMORBID ADJUSTMENT AND IQ IN PATIENTS WITH FIRST-EPISODE PSYCHOSIS: A MULTISITE CASE-CONTROL STUDY OF THEIR RELATIONSHIP WITH CANNABIS USE

Abstract not included.

T85. LIVING WITH PSYCHOSIS IN LATER LIFE

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